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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *(3)* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2008*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9,12-16,18-23,25-27,30,31,33 and 34* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1, 3-9, 12-16, 18-23, 25-27, 30, 31, 33 and 34* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

Examiner's Detailed Office Action

1. This Office Action is responsive to the communication for application 10/647,949, filed April 14, 2008.

2. Claims 1, 3-9, 12-16, 18-23, 25-27, 30, 31, 33 and 34 are pending. Claims 1, 3, 4, 26, 30, 31, 33, and 34 are currently amended. Claims 2, 10, 11, 17, 24, 28, 29, and 32 are cancelled. Claims 13, 14, 16, 18-23, and 25 are previously presented. Claims 5-9, 12, 15, and 27 are original.

3. After the previous office action, claims 1, 3-9, 12-16, 18-23, 25-27, 30, 31, 33 and 34 stood rejected.

4. Examiner withdrew the finality of the Office Action of February 22, 2008 and submits a new non-final Office Action.

Claim Rejections - 35 USC § 112, 1st

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full,

clear, concise, and exact terms as to enable any person skilled in the
art to which it pertains, or with which it is most nearly connected, to
make and use the same and shall set forth the best mode contemplated by
the inventor of carrying out his invention.

6.   Claims 1, 3-9, 12-16, 18-23, 25-27, 30, 31, 33 and 34 are

rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claim(s) contains

subject matter which was not described in the specification in

such a way as to enable one skilled in the art to which it

pertains, or with which it is most nearly connected, to make

and/or use the invention. Claims 1, 3-9, 12-16, 18-23, 25-27,

30, 31, 33 and 34 are considered non-statutory under 35 U.S.C.

112, first paragraph because the Applicants have not disclosed

how to use the claimed invention due to the lack of expository

support for the use of the invention as depicted in Figs. 4-9.

Claim Rejections - 35 USC § 101

7.   35 U.S.C. 101 reads as follows:

    Whoever invents or discovers any new and useful process, machine,
    manufacture, or composition of matter, or any new and useful
    improvement thereof, may obtain a patent therefor, subject to the
    conditions and requirements of this title.

8.   Claims 1, 3-9, 12-15, 26-27, 31 and 33-34 are rejected under

35 U.S.C. 101 because the claimed invention lacks patentable

utility.

The portions of the opinions in State Street and AT&T relying <u>solely</u> on a "useful, concrete and tangible" result analysis should no longer be relied on. Ex parte Bilski, Appeal No. 2007-1130 (Fed. Cir. October 30, 2008. The court has said that there's a two-pronged test to determine whether a software of business method process patent is valid: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. In other words, pure software or business method patents that are neither tied to a specific machine nor change something into a different state are not patentable. Ex parte Bilski, Appeal No. 2007-1130 (Fed. Cir. October 30, 2008).

Claims 1, 3-9, 12-15, 26-27, 31 and 33-34 do not recite the application of the invention in the implied context of Figs. 4-9 and there is insufficient exposition accompanying Figs. 4-9 to ascertain whether the depicted use of the present invention is directed toward a specific and credible real-world scenario or simulation or a completely speculative arrangement of hypotheses and parameter values (e.g., in a war game). In a completely speculative arrangement of hypotheses and parameter values, such as a war game, the importance of a confidence value related to a hypothesis is only determined by the exigency of the game state

within the conventions of the game. Establishing a connection

with the game state and the state of the real-world is

considered to require proof or demonstration (outside of the

scope of the current invention) and certainly not disclosed in

the specification. Since Fig. 4 does not illustrate the context

in which the present invention is being used, and there is no

accompanying exposition to that effect, it is unknown as to

whether the depicted hypothesis (whether or not North Korea is

receiving long range missile assistance from Russia) represents

a specific and credible real-world situation or merely an

imaginary scenario. It should be clear, that in the case of a

war game, a confidence value established by the game would *not*

(or at least, *should not*) be used by the Secretary of Defense to

decide what course of action should be taken in the real-world

at the time and during the duration of the game without some

other basis for the decision. Examiner finds the present

Application does not *unambiguously* disclose a specific and

credible utility for the claimed invention. Therefore, claims

1-9, 12-15, 26-27 and 31-34 remain rejected under 35 U.S.C. §101

because the claimed invention lacks utility.

9.   Claims 26 and 27 are rejected under 35 U.S.C. 101 because

the claimed invention preempts the editing and displaying of

structured arguments in any conceivable way. Examiner finds

claim 26 to lack the tie with another class of statutory subject

matter (e.g., machine or manufacture) and interprets "system" to

be a general scheme for editing and displaying a structured

argument with the claimed means which do not exclude the

possibility that the editing and displaying could be carried out

by handwritten graphics plus mental means. Examiner asserts

that claim 26 is really a process claim in means plus function

language and is non-statutory under 35 U.S.C. §101 because it

would preempt any and every possible way of performing the steps

of a process with the claimed means, by human or by any kind of

machine or by any combination thereof (see IN RE BERNARD L.

BILSKI and RAND A. WARSAW, United States Court of Appeals for

the Federal Circuit 2007-1130 (Serial No. 08/833,892)). Examiner

maintains the rejection of claims 26 and 27 under 35 U.S.C. §101

as preempting the application of editing and displaying

structured arguments in any conceivable way.

10. Claim 30 is rejected under 35 U.S.C. 101 because the

claimed invention lacks patentable utility. Examiner disagrees.

Claim 30 does not recite the application of the invention in the

implied context of Figs. 4-9 and there is no exposition

accompanying Figs 4-9 to disambiguate whether the context is a

specific credible real-world situation or an imaginary one

(e.g., a war game). As such, claim 30 lacks utility as contended

by the Applicant and remains rejected under 35 U.S.C. § 101

because the claimed invention lacks utility.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs

of 35 U.S.C. 102 that form the basis for the rejections under

this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in
> this or a foreign country or in public use or on sale in this country,
> more than one year prior to the date of application for patent in the
> United States.

12. Claims 1, 3-9, 12, 16, 19, 20, 22, 25, 26, 27, 30, 31, 33,

and 34 are is rejected under 35 U.S.C. 102(b) as being

anticipated by **van Gelder**, "Argument Mapping with Reason!Able",

2002.

Regarding claim 1. (Currently Amended): *van Gelder* teaches a

system for editing and displaying a structured argument (*see*

title page, Examiner interprets Reason!Able to be a system for

editing and displaying a structured argument.), having a

plurality of associated parameters, the system comprising:

a processor operative to execute computer executable
instructions (*see* §3. Computer-supported Argument Mapping,
footnote 1, *Examiner interprets "computers running Windows 95
and above" to comprise a processor operative to execute computer
executable instructions*.); and

a computer readable medium that stores the computer executable
instructions (*see* §3. Computer-supported Argument Mapping,
footnote 1, *Examiner interprets "computers running Windows 95
and above" to comprise a computer readable medium (e.g., a
magnetic disk) that stores the computer executable
instructions*.), the computer executable instructions comprising:

a user interface that graphically displays the

plurality of parameters at a user accessible display and

receives input from a user defining the value of a selected

parameter (*see* § 4. Reason!Able Features, Figures 1-4,

*Examiner interprets Figures 1-4 to show a user interface

("the workspace") that graphically displays the plurality

of parameters ("text inside the nodes" (see §4.3) and

"evaluative dimensions and values" (see §4.5)at a user

accessible display and receives input from a user defining

the value of a selected parameter*.), wherein the plurality

of parameters comprises respective confidence values for a

plurality of hypotheses (*see* 4.5. Evaluating Arguments,

Examiner interprets the "Strength of reasons/objections",

"Degree of confidence in the truth of claims", and

"Independent grounds for accepting a claim as true" to be

the plurality or parameters comprises respective confidence

values for a plurality of hypotheses.)<u>;</u>

a computational engine that alters the selected

parameter to the defined value, updates the plurality of

parameters according to the defined value of the selected

parameter, and provides the altered parameters to the user

interface, such that the display is updated in real time to

reflect the user input (*see* §3. Computer-supported Argument

Mapping, footnote 1, *Examiner interprets "computers running*

Windows 95 and above" to be a computational engine that

alters the selected parameter to the defined value, updates

the plurality of parameters according to the defined value

of the selected parameter, and provides the altered

parameters to the user interface, such that the display is

updated in real time to reflect the user input.); and

a simulation function (*see* §4.6. Guidance, Figure 5,

Examiner interprets 'guidance in the form of context-

sensitive instructions from "Socrates,")' to be a

simulation function.) that alters at least one parameter of

the structured argument according to a predetermined series

of values, representing changes in the at least one

parameter over a period of time (*see* § 4.5. Evaluating

Arguments, *Examiner interprets a numerical scale used to*

replace "the simple range of discreet values for degrees of

confidence" to be a predetermined series of values,

representing changes in the at least one parameter over a

period of time.).

Regarding claim 16. (Previously Presented): *van Gelder* teaches a

computer readable medium having stored executable instructions

(*see* §3. Computer-supported Argument Mapping, footnote 1,

Examiner interprets "computers running Windows 95 and above" to

comprise a computer readable medium (e.g., a magnetic disk)

having stored executable instructions.) for determining the

sensitivity of a hypothesis of interest to a parameter within an

argument model (*see* § 4.5. Evaluating Arguments, *Examiner*

interprets "Strength of reasons/objections" to determine the

sensitivity of a hypothesis of interest to a parameter within an

argument model, where a hypothesis of interest to a parameter is

a "reason" of a certain strength with an "objection" of a

certain "degree of confidence".), such that an associated

processor executing the executable instructions performs a

plurality of functions comprising:

   providing a continuous mechanism for a user to modify the

parameter, such that the user can make multiple modifications to

the parameter in rapid sequence (*see* §4.1. Building Argument

Trees, Figure 1, *Examiner interprets "workspace" to be a*

continuous mechanism for a user to modify a parameter (e.g.,

text inside a node (see §4.3)), such that the user can make

multiple modifications to the parameter in rapid sequence.);

   updating a confidence value associated with the hypothesis

of interest in response to the modification of the parameter

(*see* § 4.5. Evaluating Arguments, Figure 5, *Examiner interprets*

rating claims to alter at least one parameter of the structured

argument according to a predetermined series of values

representing changes in the at least one parameter over a period

of time (i.e., the confidence values in the "reasons" and

"objections" which change over time in critical thinking

instruction (see §5). Examiner interprets a numerical scale used

to replace "the simple range of discreet values for degrees of

confidence" to be a predetermined series of values.); and

   altering a display of the confidence value of the

hypothesis of interest in real time to match the updated

confidence value in response to each modification of the

parameter, wherein the display of the confidence value comprises

a qualitative display of the confidence value, such that a non-

numerical quality of a node associated with the hypothesis of

interest is altered to illustrate a change in the confidence

value (*see* § 4.5. Evaluating Arguments, Figure 5, *Examiner*

interprets rating claims to alter a display of the confidence

value of the hypothesis of interest in real time to match the

updated confidence value in response to each modification of the

parameter, wherein the display of the confidence value comprises

a qualitative display of the confidence value, such that a non-

numerical quality of a node associated with the hypothesis of

interest is altered to illustrate a change in the confidence

value (e.g., degree of confidence, "*Claims have been rated as*

probably true (light blue)...").).

Regarding claim 26. (Currently Amended): van *Gelder* teaches a

system for editing and displaying a structured argument (*see*

title page, Examiner interprets Reason!Able to be a system for

editing and displaying a structured argument.), comprising a

plurality of parameters, comprising:

        means for storing the structured argument (*see* §3.

Computer-supported Argument Mapping, footnote 1, *Examiner*

interprets "computers running Windows 95 and above" to comprise

a means for storing the structured argument (e.g., a magnetic

disk).)<u>;</u>

<u>means for processing executable instructions and accessing</u>

<u>the means for storing</u> (*see* §3. Computer-supported Argument

Mapping, footnote 1, *Examiner interprets "computers running*

Windows 95 and above" to be a means for processing executable

instructions and accessing the means for storing.)<u>;</u>

means for graphically displaying the plurality of

parameters, each having an associated value, the means for

displaying comprising means for scaling a displayed argument

model to a desired size (*see* §4.1. Building Argument Trees and §

4.2. Viewing Argument Trees, *Examiner interprets "the workspace"*

to be the means for graphically displaying the plurality of

parameters, each having an associated value. Examiner

interprets "Zooming" to be the means for displaying comprising

means for scaling a displayed argument model to a desired

size.);

means for receiving input from a user, the input comprising

a request to modify respective values of at least one selected

parameter from the plurality of parameters (*see* §4.1. Building

Argument Trees and § 4.3. Editing and Modifying, *Examiner*

interprets "the workspace" to be the means for receiving input

from a user, the input comprising a request to modify respective values of at least one selected parameter from the plurality of parameters. Examiner interprets "text inside the nodes can of course be edited in the normal way" to be the means for updating the modified parameter values.);

means for modifying the values of the at least one selected parameter and at least one other parameter from the plurality of parameters (*see §4.1. Building Argument Trees, § 4.3. Editing and Modifying, and §4.5. Evaluating Arguments, Examiner interprets "the workspace" to be the means for modifying the values of the at least one selected parameter and at least one other parameter from the plurality of parameters. Examiner interprets "text inside the nodes can of course be edited in the normal way" (§4.3) to disclose modifying the values of the at least one selected parameter and rating to be the means for modifying at least one other parameter from the plurality of parameters (e.g., degree of confidence, "Claims have been rated as probably true (light blue)...") (§4.5).);*

means for altering at least one parameter of the structured argument according to a predetermined series of values as to represent changes in the at least one parameter over a period of time (*see §4.5. Evaluating Arguments, Examiner interprets "a numerical scale" which replaces the simple range of discrete*

values for degrees of confidence to be the means for altering at

least one parameter of the structured argument according to a

predetermined series of values as to represent changes in the at

least one parameter over a period of time.); and

means for updating the modified parameter values (*see* §

4.3. Editing and Modifying, *Examiner interprets "text inside the*

nodes can of course be edited in the normal way" to be the means

for updating the modified parameter values.) and the means for

displaying in real time in response to the user input (*see* §

4.5. Evaluating Arguments, Figure 5, *Examiner interprets rating*

claims to be the means for displaying in real time in response

to the user input *(e.g., degree of confidence, "Claims have been*

rated as probably true (light blue)...").).

Regarding claim 30. (Currently Amended): van *Gelder* teaches a

set of stored executable instructions that can be executed by an

associated processor to edit and display a structured argument

having a plurality of associated parameters (*see* title page,

Examiner interprets Reason!Able to be a set of stored executable

instructions that can be executed by an associated processor to

edit and display a structured argument having a plurality of

associated parameters.), the executable instructions comprising:

a user interface that graphically displays the plurality of
parameters, comprising respective confidence values for a
plurality of hypotheses, at a user accessible display and
receives input from a user defining the value of a selected
parameter, wherein the plurality of hypotheses are displayed as
colored nodes within a belief network, and the respective
confidence values being represented as at least one of the
brightness, hue, and saturation of the color of the node (*see* §
4.1. Building Argument Trees and §4.5. Evaluating Arguments,
Examiner interprets "the workspace" to be a user interface that
graphically displays the plurality of parameters, comprising
respective confidence values for a plurality of hypotheses, at a
user accessible display and receives input from a user defining
the value of a selected parameter, wherein the plurality of
hypotheses are displayed as colored nodes within a belief
network, and the respective confidence values being represented
as at least one of the brightness, hue, and saturation of the
color of the node.); and

a computational engine that alters the selected parameter
to the defined value, updates the plurality of parameters
according to the defined value of the selected parameter, and
provides the altered parameters to the user interface, such that
the display is updated in real time to reflect the user input

(*see* §3. Computer-supported Argument Mapping, footnote 1,

Examiner interprets "computers running Windows 95 and above" to

computational engines that alter the selected parameter to the

defined value, updates the plurality of parameters according to

the defined value of the selected parameter, and provides the

altered parameters to the user interface, such that the display

is updated in real time to reflect the user input.).

Regarding claim 31. (Currently Amended): van *Gelder* teaches a

system for editing and displaying a structured argument, having

a plurality of associated parameters (*see* title page, *Examiner*

interprets Reason!Able to be a system for editing and displaying

a structured argument, having a plurality of associated

parameters (see §4.5. Evaluating Arguments, "evaluative

dimensions and values").), the system comprising:

    a processor, operative to execute computer executable

instructions (*see* §3. Computer-supported Argument Mapping,

footnote 1, *Examiner interprets "computers running Windows 95*

and above" to comprise a processor operative to execute computer

executable instructions.); and

    a computer readable medium that stores the computer

executable instructions (*see* §3. Computer-supported Argument

Mapping, footnote 1, *Examiner interprets "computers running*

Windows 95 and above" to comprise a computer readable medium

(e.g., a magnetic disk) that stores the computer executable

instructions.), the computer executable instructions comprising:

a user interface that graphically displays the

plurality of parameters(*see* § 4.1. Building Argument Trees

and §4.2. Viewing Argument Trees, *Examiner interprets "the*

workspace" to be a user interface that graphically displays

the plurality of parameters.), comprising a plurality of

influence parameters representing the degree of logical

relatedness between respective associated first and second

hypotheses(*see* § 4.1. Building Argument Trees and §4.2.

Viewing Argument Trees, *Examiner interprets "text inside*

the nodes" to comprise a plurality of influence parameters

representing the degree of logical relatedness between

respective associated first and second hypotheses.), at a

user accessible display and receives input from a user

defining the value of a selected parameter(*see* § 4.1.

Building Argument Trees, *Examiner interprets "the*

workspace" to be a user accessible display and receives

input from a user defining the value of a selected

parameter.), wherein the influence parameters are displayed

as connectors between respective first nodes, representing

the associated first hypotheses, and respective second

nodes, representing the associated second hypotheses(*see* §

4.1. Building Argument Trees, *Examiner interprets*

`hierarchical "tree" structures representing the

inferential relationships among the various claims which

make up argument' to comprise influence parameters (the

text inside the boxes) that are displayed as connectors

between respective first nodes, representing the associated

first hypotheses, and respective second nodes, representing

the associated second hypotheses.), and the magnitude of a

given influence parameter is represented by at least one

spatial dimension of the associated connector of the

influence parameter(*see* 4.5. Evaluating Arguments, Figure

5, "the whole reason is being evaluated as offering strong

support (mid green)", *Examiner interprets the strength of*

reasons to be a given influence parameter that is

represented by at least one spatial dimension of the

associated connector of the influence parameter.), <u>wherein</u>

<u>the plurality or parameters comprises respective confidence</u>

<u>values for a plurality of hypotheses</u> (*see* 4.5. Evaluating

Arguments, *Examiner interprets the "Strength of*

reasons/objections", "Degree of confidence in the truth of

claims", and "Independent grounds for accepting a claim as

true" to be the plurality or parameters comprises

respective confidence values for a plurality of

hypotheses.); and

a computational engine that alters the selected

parameter to the defined value, updates the plurality of

parameters according to the defined value of the selected

parameter, and provides the altered parameters to the user

interface, such that the display is updated in real time to

reflect the user input (*see* §3. Computer-supported Argument

Mapping, footnote 1, *Examiner interprets "computers running*

Windows 95 and above" to computational engines that alter

the selected parameter to the defined value, updates the

plurality of parameters according to the defined value of

the selected parameter, and provides the altered parameters

to the user interface, such that the display is updated in

real time to reflect the user input.).

Regarding claim 3. (Currently Amended): *van Gelder* teaches the

system of claim 1, at least one confidence value being displayed

to a user via a first, qualitative indicator and a second,

quantitative indicator (*see* 4.5. Evaluating Arguments, Figure 5,

"Claims have been rated as probably true (light blue); the

premises are both accepted as probably true on the grounds of

common knowledge; and the whole reason is being evaluated as

offering strong support (mid green).", *Examiner interprets the*

degree of confidence of the claims ("probably true—light blue)")

to be at least one confidence value being displayed to a user

via a first, qualitative indicator. Examiner interprets the

strength of the whole reason ("strong support (mid green)") to

be a second, quantitative indicator.).

Regarding claim 4. (Currently Amended): *van Gelder* teaches the

system of claim 1, the plurality of hypotheses being displayed

as colored nodes within a belief network, and the respective

confidence values being represented as at least one of the

brightness, hue, and saturation of the color of the node (*see*

§4.5. Evaluating Arguments, Figure 5, "Claims have been rated as

probably true (light blue); the premises are both accepted as

probably true on the grounds of common knowledge; and the whole

reason is being evaluated as offering strong support (mid

green).", *Examiner interprets the* plurality of hypotheses

("premises" and "whole reason") being displayed as colored nodes

within a belief network, and the respective confidence values

being represented as the color of the node.).

Regarding claim 5. (Original): *van Gelder* teaches the system of

claim 4, the plurality of hypotheses comprising supporting,

detracting, and neutral hypotheses, supporting hypotheses being

associated with a first color, detracting hypotheses being

associated with a second color, and neutral hypotheses being

associated with a third color (*see* §4.1. Building Argument

Trees, "A claim is represented by a white box; reasons are green

boxes and objections are red boxes.", *Examiner interprets a*

"claim" to be a neutral hypotheses. Examiner interprets a reason

to be a supporting hypotheses. Examiner interprets an objection

to be a detracting hypotheses.).

Regarding claim 6. (Original): *van Gelder* teaches the system of

claim 1, the plurality of parameters comprising a plurality of

influence parameters, the influence parameters representing the

degree of logical relatedness between respective associated

first and second hypotheses (*see* § 4.1. Building Argument Trees

and §4.2. Viewing Argument Trees, *Examiner interprets "text*

inside the nodes" to comprise a plurality of influence

parameters, the influence parameters representing the degree of

logical relatedness between respective associated first and

second hypotheses.).

Regarding claim 7. (Original): *van Gelder* teaches the system of

claim 6, at least one influence parameter being displayed to a

user via a first, qualitative indicator and a second,

quantitative indicator (*see* 4.5. Evaluating Arguments, Figure 5,

"Claims have been rated as probably true (light blue); the

premises are both accepted as probably true on the grounds of

common knowledge; and the whole reason is being evaluated as

offering strong support (mid green).", *Examiner interprets the*

degree of confidence of the claims ("probably true—light blue)")

to be at least one influence parameter being displayed to a user

via a first, qualitative indicator. Examiner interprets the

strength of the whole reason ("strong support (mid green)") to

be a second, quantitative indicator as the quantitative strength

is mapped to the intensity of color of reason/objection.).

Regarding claim 8. (Original): *van Gelder* teaches the system of

claim 6, the influence parameters being displayed as s

connectors between respective first nodes, representing the

associated first hypothesis, and respective second nodes,

representing the associated second hypothesis (*see* § 4.1.

Building Argument Trees, *Examiner interprets 'hierarchical*

"tree" structures representing the inferential relationships

among the various claims which make up argument' to comprise

influence parameters (the text inside the boxes) that are

displayed as s connectors between respective first nodes,

representing the associated first hypotheses, and respective

second nodes, representing the associated second hypotheses.),

the magnitude of the influence parameter being represented by at

least one spatial dimension of the connector (*see* 4.5.

Evaluating Arguments, Figure 5, "the whole reason is being

evaluated as offering strong support (mid green)", *Examiner*

interprets the strength of reasons to be a given influence

parameter that is represented by at least one spatial dimension

of the associated connector of the influence parameter.).

Regarding claim 9. (Currently Amended): *van Gelder* teaches the

system of claim 1, the computer executable instructions further

comprising a collapse node function that allows the structured

argument to be scaled to a desired size (*see* §4.4. Premises,

Figure 4, "reasons are initially represented as single green

boxes containing the main premise, but they can be "unfolded" to
show the full set of premises", *Examiner interprets the single
green box containing the main premise (i.e., reason) to be the
result of a collapse node function that allows the structured
argument to be scaled to a desired size.*).

Regarding claim 12. (Original): *van Gelder* teaches the system of
claim 1, the plurality of parameters defining an argument model
(*see* §4.1. Building Argument Trees, Figure 1, *Examiner
interprets the "argument map" to comprise the plurality of
parameters defining an argument model.*).

Regarding claim 19. (Previously Presented): *van Gelder* teaches
the computer readable medium of claim 16, the display of the
confidence value further comprising a quantitative display (see
§4.5. Evaluating Arguments, Figure 5, "Claims have been rated as
probably true (light blue);", *Examiner interprets the color of
the claims to be a display of the confidence value further
comprising a quantitative display.*).

Regarding claim 20. (Previously Presented): *van Gelder* teaches

the computer readable medium of claim 16, the parameter

comprising a confidence value associated with a contributing

hypothesis within the structured argument (*see* §4.5. Evaluating

Arguments, Figure 5, "Claims have been rated as probably true

(light blue); the premises are both accepted as probably true on

the grounds of common knowledge...", *Examiner interprets the*

"Degree of confidence in the truth of claims" to be the

parameter comprising a confidence value associated with a

contributing hypothesis. *Examiner interprets the claim "Socrates*

is a human." to be a contributing hypothesis within the

structured argument.).

Regarding claim 22. (Previously Presented): *van Gelder* teaches

the computer readable medium of claim 16, the argument model

comprising at least two contributing hypotheses, the parameter

comprising an influence value associated with a logical

relationship between the two contributing hypotheses (*see* §4.1.

Building Argument Trees, Figure 1, *Examiner interprets the*

"argument map" to comprise at least two contributing hypotheses

(i.e., "reasons'—green boxes). Examiner interprets the

parameter comprising an influence value associated with a

logical relationship between the two contributing hypotheses to be the text inside the box.).

Regarding claim 25. (Previously Presented): *van Gelder* teaches the computer readable medium of claim 16, the plurality of functions further comprising providing a predetermined series of values into the argument such that the at least one parameter is altered according to the predetermined series of values, the predetermined series of values representing changes in the at least one parameter over a period of time (*see* § 4.5. Evaluating Arguments, *Examiner interprets a numerical scale used to replace "the simple range of discreet values for degrees of confidence" to comprise providing a predetermined series of values into the argument such that the at least one parameter is altered according to the predetermined series of values, the predetermined series of values representing changes in the at least one parameter over a period of time.).*

Regarding claim 27. (Original): *van Gelder* teaches the system of claim 26, the means for displaying comprising means for qualitatively displaying the value of the plurality of

parameters and means for quantitatively displaying the value of
the plurality of parameters (*see* §4.1. Building Argument Trees,
*Examiner interprets the "workspace" to be the means for
displaying comprising means for qualitatively displaying the
value of the plurality of parameters and means for
quantitatively displaying the value of the plurality of
parameters.*).

Regarding claim 33. (Currently Amended): *van Gelder* teaches the
system of claim 31, at least one confidence value being
displayed to a user via a first, qualitative indicator and a
second, quantitative indicator (*see* 4.5. Evaluating Arguments,
Figure 5, "Claims have been rated as probably true (light blue);
the premises are both accepted as probably true on the grounds
of common knowledge; and the whole reason is being evaluated as
offering strong support (mid green).", *Examiner interprets the
degree of confidence of the claims ("probably true—light blue)")
to be at least one influence parameter being displayed to a user
via a first, qualitative indicator. Examiner interprets the
strength of the whole reason ("strong support (mid green)") to
be a second, quantitative indicator as the quantitative strength
is mapped to the intensity of color of reason/objection.*).

Regarding claim 34. (Currently Amended): *van Gelder* teaches the system of claim 31, the plurality of hypotheses being displayed as colored nodes within a belief network, and the respective confidence values being represented as at least one of the brightness, hue, and saturation of the color of the node (*see* §4.5. Evaluating Arguments, Figure 5, "Claims have been rated as probably true (light blue); the premises are both accepted as probably true on the grounds of common knowledge; and the whole reason is being evaluated as offering strong support (mid green).", *Examiner interprets the* plurality of hypotheses ("premises" and "whole reason") being displayed as colored nodes within a belief network, and the respective confidence values being represented as the color of the node.).

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

      (a) A patent may not be obtained though the invention is not
      identically disclosed or described as set forth in section 102 of this
      title, if the differences between the subject matter sought to be
      patented and the prior art are such that the subject matter as a whole
      would have been obvious at the time the invention was made to a person
      having ordinary skill in the art to which said subject matter pertains.
      Patentability shall not be negatived by the manner in which the
      invention was made.

14.   Claim 13 is rejected under 35 U.S.C. 103(a) as being

unpatentable over **van Gelder** in view of **Lacave** et al.

(Lacave), "Graphical Explanation in Bayesian Networks", 2000.

Regarding claim 13. (Previously Presented): van Gelder teaches

the system of claim 12. van Gelder does not teach the argument

model being represented by a Bayesian belief network. However,

Lacave does teach the argument model being represented by a

Bayesian belief network (see § 2 Graphical Explanation in

Elvira, "Probabilistic reasoning consists of computing the

posterior probability of the unobserved variables given the

findings of a certain case; this process is sometimes called

evidence propagation and is based on the application of Bayes

theorem." Examiner interprets "evidence propagation" to be an

argument model being represented by a Bayesian belief network

(see Fig. 1).). It would have been obvious at the time the

invention was made to persons having ordinary skill in the art

to combine van Gelder with Lacave to explain to the user the

results of evidence propagation.

Claim Rejections - 35 USC § 103

15. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over **van Gelder** in view of **Wang** *et al.* (*Wang*), "Exponential growth rate of Dempster-Shafer belief functions", 1992.

Regarding claim 14. (Previously Presented): *van Gelder* teaches the system of claim 12. *van Gelder* does not teach the argument model being represented by a Dempster-Shafer belief network. *Wang* does teach the argument model being represented by a Dempster-Shafer belief network (*see* Abstract). It would have been obvious at the time the invention was made to persons having ordinary skill in the art to combine *van Gelder* with *Wang* to obtain greater expressive power and convenient representation of hierarchical evidence.

Response to Arguments

16. Applicant's arguments filed April 14, 2008 have been fully considered.

  I. The Finality of the Office Action Should be Withdrawn

Applicant(s) argue(s):

In the present Office Action, the Examiner has failed to
reply to arguments offered by Applicant's representative in
the response filed on November 27, 2007, hereinafter
referred to as the "previous response." Instead, the
Examiner appears to repeat the arguments made in the
previous Office Action issued on August 30, 2007 without
further comments. In particular, the Examiner has failed to
withdraw objections and rejections that were either made in
error, or are overcome in light of amendments to the
claims. Thus, Applicant's representative respectfully
requests that the Examiner withdrawal the Finality of the
Office Action.

Examiner responds:

Examiner withdraws the Finality of the Office Action of

February 22, 2008 and submits a new non-final Office

Action.

II. Objection to Claim 30 for Informalities

Applicant(s) argue(s):

Claim 30 is objected to for informalities. Claim 30 was
amended in the previous response to recite the exact
language that the Examiner is currently suggesting. Thus,
clearly, the objection to claim 30 should be withdrawn.

Examiner responds:

Examiner withdraws objection to amended claim 30 for

informalities.

.

III. Rejection of Claims 1-9, 12-15, 26-27, and 31-34 Under 35

U.S.C. §101

Applicant(s) argue(s):

Claims 1, 3-9, 12-15, 31 and 33-34 are not preemptive.
Independent claims 1 and 31 recite a processor that
executes computer executable instructions, and that stored
computer executable instructions are stored on a computer
readable medium. Applicant's representative respectfully
submits that the holding by the U.S. Court of Appeals for
the Federal Circuit ("Federal Circuit") in In re Warmerdam,
supports the patentability of claims 1, 3-9, 12-15, 31 and
33-34. 33 F.3d 1354, 31 U.S.P.Q.2d 1754 (Fed. Cir. 1994).

Specifically, in Warmerdam, the Federal Circuit held
claims 1-4 of the appellant's application (which were
method claims) to be nonstatutory. 33 F.3d 1354, 1360, 31
U.S.P.Q.2d 1754. However, in Warmerdam, claim 5 of the
appellant's application recited a machine having a memory
which contains data representing a bubble hierarchy
generated by a method of any of the claims 1-4 of the
appellant's application. 33 F.3d 1354, 1358, 31 U.S.P.Q.2d
1754. The Federal Circuit held that claim 5 of the
appellant's application was for a machine, and was clearly
patentable subject matter. 33 F.3d 1354, 1360, 31
U.S.P.Q.2d 1754. Applicant's representative respectfully
submits that claims 1 and 31 of the present application are
analogous to claim 5 of the application considered in
Warmerdam. That is, claims 1 and 31 are system claims,
which should be categorized as machines having executable
algorithms for transforming parameters associated with a
structured argument.

Moreover, in rejecting the claims (particularly
independent claims 1 and 31), the Examiner contends that
the claims clearly preempt the application of editing and
displaying arguments in any conceivable language or
representation of language for any conceivable subject
displayed or edited in any conceivable way by a computer
system (See Office Action, Page 4). However, the Examiner
cited no legal authority to support this finding. In
considering the issue of preemption, the Federal Circuit
cited a legal test known as the Freeman-Walter-Abele test.
Arrhythmia Research Tech., Inc. v. Corazonix Corp. 958,
F.2d 1053, 1058, 22 U.S.P.Q.2d 1033 (Fed. Cir. 1992). In

Arrhythmia, the Federal circuit held that the test for
patentability (under 35 U.S.C. § 101) requires no more than
an algorithm be applied in any manner to physical elements
or process steps, provided that its application is
circumscribed by more than a field of use limitation or
non-essential post-solution activity. Id.

Applicant's representative respectfully submits that
claims 1 and 31 (substantially) recite a user interface
that graphically displays a plurality of parameters to a
user accessible display and receives input from a user
defining a value of a selected parameter, wherein the
plurality of parameters comprises a respective confidence
value for a plurality of hypotheses. Applicant's
representative respectfully submits that the recited
confidence value can be used by a user to make decisions
related to the recited hypotheses (e.g., application in
military and defense, industrial processes, design work,
research, and corporate management, etc.). Therefore,
claims 1 and 31 are related to arguments applied in to
physical elements, namely, a user interface that displays a
plurality of parameters. Thus, Applicant's representative
respectfully submits that independent claims 1 and 31, as
well as claims 2-9, 12-15 and 32-34 depending therefrom,
are directed to statutory subject matter.

Claim 26 recites means for storing a structured
argument, means for processing executable instructions and
accessing the means for storing and means for graphically
displaying a plurality of parameters, each having an
associated value, the means for displaying comprising means
for scaling a displayed argument model to a desired size.
Applicant's representative respectfully submits that claim
26 recites patentable subject matter for reasons similar to
claims 1 and 31, since claim 26 recites means for
graphically displaying a plurality of parameters, each
having an associated value. Therefore, claim 26, as well as
claim 27 depending therefrom is directed to statutory
subject matter.

Examiner responds:

Examiner finds no exposition in the specification

supporting the assertion that "the recited confidence value can

be used by a user to make decisions related to the recited

hypotheses (e.g., application in military and defense,

industrial processes, design work, research, and corporate

management, etc.)". Examiner finds only the assertion and Figs.

4-9 which *imply* a military application. However, Examiner finds

Applicant's argument that the invention is limited to displaying

and storing on a computer (rather than a general method of

processing) structured arguments persuasive and withdraws

rejection of claims 1, 3-9, 12-15, 31, and 33-34 under 35 U.S.C.

§101 as preempting the application of editing and displaying

arguments in any conceivable language or representation of

language for any conceivable subject displayed or edited in any

conceivable way by a computer system.

However, Examiner finds claim 26 to lack the tie with

another class of statutory subject matter (e.g., machine or

manufacture) and interprets "system" to be a general scheme for

editing and displaying a structured argument with the claimed

means which do not exclude the possibility that the editing and

displaying could be carried out by handwritten graphics plus

mental means. Examiner asserts that claim 26 is really a

process claim in means plus function language and is non-

statutory under 35 U.S.C. §101 because it would preempt any and

every possible way of performing the steps of a process with the

claimed means, by human or by any kind of machine or by any

combination thereof (*see* IN RE BERNARD L. BILSKI and RAND A.

WARSAW, United States Court of Appeals for the Federal Circuit

2007-1130 (Serial No. 08/833,892)). Examiner maintains the

rejection of claims 26 and 27 under 35 U.S.C. §101 as preempting

the application of editing and displaying structured arguments

in any conceivable way.

IV. Rejection of Claim 30 Under 35 U.S.C. §101

Applicant(s) argue(s):

    Claim 30 stands rejected under 35 U.S.C. § 101 because
the claimed invention is preemptive.

    Similarly to claims 1 and 26, claim 30 recites a user
interface that graphically displays a plurality of
parameters comprising confidence values for a plurality of
hypotheses. As stated above, a user interface that displays
a plurality of parameters (comprising confidence values)
constitutes patentable subject matter. Thus, claim 30 is
directed to statutory subject matter. Accordingly,
withdrawal of this rejection is respectfully requested.

Examiner responds:

Examiner finds applicant's argument persuasive and

withdraws rejection of claim 30 under 35 U.S.C. § 101

because the claimed invention is preemptive.

V. Rejection of Claims 1-9, 12-15, 26-27, and 31-34 Under 35

U.S.C. §101

Applicant(s) argue(s):

        Claims 1-9, 12-15, 26-27 and 31-34 stand rejected
under 35 U.S.C. §101 because the claimed invention lacks
utility.

        In rejecting claims 1, 3-9, 12-15, 26-27, 31 and 33-
34, the Examiner argues that the Specification of the
Application fails to disclose what specific and substantial
areas of government policy the invention is useful, as well
as how it is useful. Applicant's representative
respectfully disagrees. FIG. 4 of the Application clearly
shows a very specific example of the present invention
being implemented. In particular, FIG. 4 illustrates the
present invention being used to analyze a hypothesis of
whether or not North Korea is receiving long range missile
assistance from Russia. Applicant's representative
respectfully submits that one of ordinary skill would
immediately appreciate the importance of a confidence value
related to such a hypothesis. Such a confidence value
could, for instance be used by a governmental official
(e.g., the Secretary of Defense) to decide what course of
action should be taken (e.g., change diplomatic
strategies). Therefore, the present Application clearly
discloses a specific utility for the claimed invention.
Thus, claims 1, 3-9, 12-15, 26-27, 31 and 33-34 do not lack
utility.

Examiner responds:

    Examiner disagrees. Claims 1, 3-9, 12-15, 26-27, 31 and

    33-34 do not recite the application of the invention in the

    implied context of Figs. 4-9 and there is insufficient

exposition accompanying Figs. 4-9 to ascertain whether the

depicted use of the present invention is directed toward a

specific and credible real-world scenario or simulation or

a completely speculative arrangement of hypotheses and

parameter values (e.g., in a war game). In a completely

speculative arrangement of hypotheses and parameter values,

such as a war game, the importance of a confidence value

related to a hypothesis is only determined by the exigency

of the game state within the conventions of the game. Any

connection with the game state and the state of the real-

world would be, at most, hypothetical, requiring proof or

demonstration (outside of the scope of the current

invention). Since Fig. 4 does not illustrate the context

in which the present invention is being used (to analyze a

hypothesis of whether or not North Korea is receiving long

range missile assistance from Russia) and there is no

accompanying exposition, it is unknown as to whether the

hypothesis represents a specific and credible real-world

situation or merely an imaginary situation. It should be

clear, that in the case of a war game, such a confidence

value could *not* (or at least, *should not*) be used by the

Secretary of Defense to decide what course of action should

be taken in the real-world at the time and during the

duration of the game. Examiner finds the present

Application does not *clearly* disclose a specific and

credible utility for the claimed invention. Therefore,

claims 1-9, 12-15, 26-27 and 31-34 remain rejected under 35

U.S.C. §101 because the claimed invention lacks utility.

VI. Rejection of Claim 30 Under 35 U.S.C. §101

Applicant(s) argue(s):

     Claim 30 stands rejected under 35 U.S.C. § 101 because
the claimed invention lacks utility.
     In rejecting claim 30, the Examiner states that claim
30 is lacking utility in the same way that claims 1, 26 and
31 lack utility. As stated above with respect to claims 1,
26 and 31, FIG. 4 of the present Application clearly
illustrates a specific implementation for the present
invention. Thus, claim 30 does not lack utility as
contended by the Examiner.

Examiner responds:

Examiner disagrees. Claim 30 does not recite the

application of the invention in the implied context of

Figs. 4-9 and there is no exposition accompanying Figs 4-9

to disambiguate whether the context is a specific credible

real-world situation or an imaginary one (e.g., a war

game). As such, claim 30 lacks utility as contended by the

Applicant and remains rejected under 35 U.S.C. § 101

because the claimed invention lacks utility.

VII. Rejection of Claims 16, 18-23 and 25.Under 35 U.S.C. §101

Applicant(s) argue(s):

     Claims 16, 18-23 and 25 stand rejected under 35 U.S.C.
     §101 because the claimed invention is directed to non-
     statutory material: a mathematical abstraction.

     The Examiner states the result of stored executable
     instructions recited in claim 16 (from which claims 18-23
     and 25 depend) is a mathematical abstraction (See Office
     Action, Page 7). Applicant's representative respectfully
     disagrees. As stated above, claim 16 recites altering a
     display of a confidence value of a hypothesis of interest
     in real time to match an updated confidence value in
     response to each modification of a parameter. A confidence
     value (which is altered in claim 16) is not a mathematical
     abstraction. Instead, the confidence value represents real
     world results for a given hypothesis, such as the
     hypothesis disclosed in FIG. 4 of the present Application.
     Therefore, claims 16, 18-23 and 25 are not merely directed
     to a mathematical abstraction, as contended by the
     Examiner. Accordingly, withdrawal of this

Examiner responds:

     Examiner withdraws the rejection of claims 16, 18-23 and 25

under 35 U.S.C. §101 because the claimed invention is directed

to non-statutory mathematical abstraction.

VIII. Rejection of Claims 16, 18-23 and 25 Under 35 U.S.C. §101

Applicant(s) argue(s):

Claims 16, 18-23 and 25 stand rejected under 35 U.S.C. §101 because the claimed invention is preemptive.

Claim 16 (from which claims 18-23 and 25 depend) recites altering a display of confidence values of a hypothesis in real time to match an updated confidence value to each modification of a parameter. For the reasons stated above with respect to claims 1 and 26, claim 16 is directed to statutory subject matter since claim 16 recites altering a display of confidence values of a hypothesis. Accordingly, withdrawal of this rejection is respectfully requested.

Examiner responds:

Examiner withdraws the rejection of claims 16, 18-23 and 25

under 35 U.S.C. §101 because the claimed invention is

preemptive.

IX. Rejection of Claims 16, 18-23 and 25 Under 35 U.S.C. §101

Applicant(s) argue(s):

Claims 16, 18-23 and 25 stand rejected under 35 U.S.C. §101 because the claimed invention lacks utility as it is directed to a mathematical abstraction.

In rejecting claims 16, 18-23 and 25, the Examiner states the result of stored executable instructions recited in claim 16 (from which claims 18-23 and 25 depend) is a mathematical abstraction (See Office Action, Page 7). Applicant's representative respectfully disagrees. As stated above, claim 16 recites altering a display of a confidence value of a hypothesis of interest in real time to match an updated confidence value in response to each modification of a parameter. A confidence value (which is altered in claim 16) is not a mathematical abstraction.

Instead, the confidence value represents real world results
for a given hypothesis, such as the hypothesis disclosed in
FIG. 4 of the present Application. Therefore, claims 16,
18-23 and 25 are not merely directed to a mathematical
abstraction, as contended by the Examiner. Accordingly,
withdrawal of this rejection is respectfully requested.

Examiner responds:

Examiner withdraws the rejection of claims 16, 18-23 and 25

under 35 U.S.C. §101 because the claimed invention lacks

utility as it is directed to a mathematical abstraction.

IX.   Rejection of Claims 16, 18-23 and 25 Under 35 U.S.C. §101

Applicant(s) argue(s):

In rejecting claims 16, 18-23 and 25, the Examiner states
the result of stored executable instructions recited in
claim 16 (from which claims 18-23 and 25 depend) is a
mathematical abstraction (See Office Action, Page 7).
Applicant's representative respectfully disagrees. As
stated above, claim 16 recites altering a display of a
confidence value of a hypothesis of interest in real time
to match an updated confidence value in response to each
modification of a parameter. A confidence value (which is
altered in claim 16) is not a mathematical abstraction.
Instead, the confidence value represents real world results
for a given hypothesis, such as the hypothesis disclosed in
FIG. 4 of the present Application. Therefore, claims 16,
18-23 and 25 are not merely directed to a mathematical
abstraction, as contended by the Examiner.

Examiner responds:

Examiner withdraws rejection of claims 16, 18-23 and 25

under 35 U.S.C. §101 because the result of stored

executable instructions recited in claim 16 (from which

claims 18-23 and 25 depend) is a mathematical abstraction.

X.   Rejection of Claims 1-9, 12-15, 16, 18-23, 25-27, 30 and 31-34 Under 35 U.S.C. §112, First Paragraph

Applicant(s) argue(s):

        As noted above, claims 2 and 32 were canceled in the
previous response. Accordingly, the rejection of claims 2
and 32 is now moot.

        Claims 1, 3-9, 12-16, 18-23, 27-27, 30, 31, 33 and 34
have been rejected under 35 U.S.C. § 112, first paragraph
as Applicant's have not disclosed how to use the invention
due to the lack of a specific and substantial utility.

        In rejecting claims 1, 3-9, 12-16, 18-23, 27-27, 30,
31, 33 and 34 under 35 U.S.C. §112, first paragraph, the
Examiner relies solely on the rejection of claims 1, 3-9,
12-16, 18-23, 27-27, 30, 31, 33 and 34 for lacking utility.
Applicant's representative respectfully submits that since
the rejection for lack of utility has been overcome, that
this rejection should be withdrawn accordingly.

Examiner responds:

Examiner assumes Applicants mean claims 25-27 are rejected

where they argue claims "27-27" are rejected.

Claims 1, 3-9, 12-16, 18-23, 25-27, 30, 31, 33 and 34 have

remain rejected under 35 U.S.C. § 112, first paragraph as

Applicant's have not disclosed how to use the invention due

to the lack of expository support for the depicted use of

the invention in Figs. 4-9.

XI. Rejection of Claim 26 Under 35 U.S.C. §102(b)

Applicant(s) argue(s):

Claim 26 stands rejected under 35 U.S.C. § 102(b) as being anticipated by "Dialectic: Enhancing Essay Writing Skills with Computer Supported Formulation of Argumentation", 1999, by Chryssafidou ("Chryssafidou"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Chryssafidou does not disclose means for updating modified parameter values and means for displaying in real time in response to user input, as recited in claim 26. In rejecting claim 26, the Examiner contends that a system feedback disclosed in Chryssafidou reads on this element of claim 26 (See Office Action, Page 11). Applicant's representative respectfully disagrees. The system feedback disclosed in Chryssafidou is provided on the structure of arguments only by request (See Chryssafidou, Page 10). In contrast, claim 26 recites means for updating the modified parameters in real time. Since Chryssafidou specifically discloses the system feedback is on13~ provided by request, Applicant's representative respectfully submits that such a statement implies that, in contrast to the means for updating the modified parameters recited in claim 26, the system feedback disclosed in Chryssafidou is not updated in real time. Therefore, Chryssafidou does not disclose means for updating modified parameter values and means for displaying in real time in response to user input, as recited in claim 26.

Examiner responds:

Applicant's argument is moot based on new grounds of rejection.

<u>XII. Rejection of Claim 1 Under 35 U.S.C. §103(a)</u>

Applicant(s) argue(s):

    Claim 1 stands rejected under 35 U.S.C. § 103(a) as
being unpatentable over Chryssafidou in view of "An
Argument-Based Agent System with KQML as an Agent
Communication Language", 2001 by Toda, et al. ("Toda").
Withdrawal of this rejection is respectfully requested for
at least the following reasons. The Examiner has errored in
rejecting claim 1. In the previous response, claim 2 was
not rejected as being anticipated or being made obvious by
any cited art. As noted above, claim 2 was incorporated
into claim 1. Moreover, as noted above, the Examiner failed
to acknowledge the incorporation of claim 2 into claim 1.
Thus, Applicant's representative respectfully submits that
this rejection of claim 1 has been made error and should be
withdrawn.

Examiner responds:

Applicant's argument is moot based on new grounds of

rejection.

<u>XIII. Rejection of Claim 13 Under 35 U.S.C. §103(a)</u>

Applicant(s) argue(s):

    Claim 13 stands rejected under 35 U.S.C. § 103(a) as
being unpatentable over Chryssafidou in view of Murphy.
Withdrawal of this rejection is respectfully requested for
at least the following reasons. As noted above, the
Examiner has failed to respond to arguments made by
Applicant's representative in the previous response. As
noted in the previous response the rejection of claim 13
was made in error. Claim 13 depends from claim 12, and is
patentable for at least the same reasons as claim 12. Since
claim 12 was not rejected as being made obvious (or being
anticipated) by the cited art, Applicant's representative
respectfully submits that claim 13, which depends from
claim 12 cannot be made obvious by the cited art either.
Moreover, in rejecting claim 13, the Examiner relies on

Murphy solely for Murphy's disclosure of a Bayesian belief
network (See Office Action, Page 14). However, the addition
of Murphy does not make up for the aforementioned
deficiencies of the cited art. Accordingly, withdrawal of
this rejection is respectfully requested.

Examiner responds:

Applicant's argument is moot based on new grounds of

rejection.

XIV. Rejection of Claim 14 Under 35 U.S.C. §103(a)

Applicant(s) argue(s):

Claim 14 stands rejected under 35 U.S.C. § 103(a) as
being unpatentable over Chryssafidou in view of Wang.
Withdrawal of this rejection is respectfully requested for
at least the following reasons. As noted above, the
Examiner has failed to respond to arguments made by
Applicant's representative in the previous response. As
noted in the previous response, the rejection of claim 14
was made in error. Claim 14 depends from claim 12, and is
patentable for at least the same reasons as claim 12. Since
claim 12 was not rejected as being made obvious (or being
anticipated) by the cited art, Applicant's representative
respectfully submits that claim 14, which depends from
claim 12 cannot be made obvious by the cited art either.
Moreover, in rejecting claim 14, the Examiner relies on
Wang solely for Wang's disclosure of Dempster-Shafer belief
functions (See Office Action, Page 15). However, the
addition of Wang does not make up for the aforementioned
deficiencies of the cited art. Accordingly, withdrawal of
this rejection is respectfully requested.

Examiner responds:

Applicant's argument is moot based on new grounds of

rejection.

XV. Rejection of Claim 16 Under 35 U.S.C. §103(a)

Applicant(s) argue(s):

Claim 16 stands rejected under 35 U.S.C. § 103(a) as
being unpatentable over Hallogram in view of Systat.
Withdrawal of this rejection is respectfully requested for
at least the following reasons. The Examiner failed to
respond to Applicant's arguments regarding claim 16 made in
the previous response. Accordingly, the arguments will be
reiterated. Hallogram taken in view of Systat does not
teach or suggest altering a display of a confidence value
of a hypothesis of interest in real time to match an
updated confidence value in response to each modification
of a parameter, wherein the display of the confidence value
comprises a qualitative display of the confidence value,
such that a non-numerical quality of a node associated with
the hypothesis of interest is altered to illustrate a
change in the confidence value, as recited in claim 16. In
rejecting claim 16, the Examiner contends that node color
is a qualitative display of a confidence value via a non-
numerical quality of a node that is taught in Hallogram
(See Office Action, Page 16). Applicant's representative
respectfully disagrees. The nodes in Hallogram are color
coded by node type, which can include logic nodes, chance
nodes, end nodes, decision nodes, and reference nodes (See
Hallogram, page 3, "Precision Tree Nodes"). There is no
teaching or suggestion in Hologram to vary the color of the
node according to the confidence value or any other value
associated with the node. In Hologram, the node color,
along with the node shape, is employed to distinguish among
node types. Systat does not make up for the deficiencies of
Hologram. The Examiner cites Systat for Systat's disclosure
of spreadsheet-like data editing with operation graphing of
data when it is encountered (See Office Action, Pages 16-
17, citing Data Management Section of Systat). The Examiner
contends that the cited section of Systat teaches updating
a confidence value associated with a hypothesis of interest
in response to a modification of a parameter (See Office
Action, Page 17). Applicant's representative respectfully
disagrees. Applicant's representative respectfully submits
that the cited section of Systat does not bear any
relationship whatsoever to confidence values, as contended
by the Examiner. Therefore, Hallogram taken in view of
Systat does not teach or suggest the system recited in

claim 16. Thus, Hallogram taken in view of Systat does not
make claim 16 obvious, and therefore withdrawal of this
rejection is respectfully requested. XVI. Rejection of
Claim 30 Under 35 U.S.C. §103(a) Claim 30 stands rejected
under 35 U.S.C. § 103(a) as being unpatentable over
Chryssafidou in view of Hallogram. Withdrawal of this
rejection is respectfully requested for at least the
following reasons. The Examiner failed to respond to
Applicant's arguments regarding claim 30 made in the
previous response. Accordingly, the arguments will be
reiterated. Chryssafidou taken in view of Hallogram does
not teach or suggest a user interface that graphically
displays a plurality of parameters, comprising respective
confidence values for a plurality of hypotheses at a user
accessible display, and the user interface receives input
from a user defining a value of a selected parameter,
wherein the plurality of hypotheses are displayed as
colored nodes within a belief network, and the respective
confidence values being represented by at least one of the
brightness, hue and saturation of the node, as recited in
claim 30. The Examiner admits that Chryssafidou fails to
teach or suggest this element of claim 30, but contends
that Hallogram makes up for the deficiencies of
Chryssafidou (See Office Action, Page 18). Applicant's
representative respectfully disagrees. Hallogram does not
teach or suggest alternating the color of a node according
to confidence value or any other value associated with the
node. Instead, in Hallogram, the node color, along with the
node shape, is employed to distinguish among multiple node
types allowed in Hallogram. Moreover, the Examiner contends
that payoff values disclosed in Hallogram correspond to
confidence values (recited in claim 30), but the figure on
Page 5 of Hallogram clearly illustrates that all end nodes
are the same shade of blue despite varying payoff values
listed beside the nodes. Thus, Chryssafidou taken in view
of Hallogram does not teach or suggest a user interface
that graphically displays a plurality of parameters,
comprising respective confidence values for a plurality of
hypotheses at a user accessible display, and the user
interface receives input from a user defining a value of a
selected parameter, wherein the plurality of hypotheses are
displayed as colored nodes within a belief network, and the
respective confidence values being represented by at least
one of the brightness, hue and saturation of the node, as
recited in claim 30. Accordingly, Chryssafidou taken in

view of Hallogram does not teach or suggest the system
recited in claim 30, and therefore, Chryssafidou taken in
view of Hallogram fails to make claim 30 obvious. Thus,
claim 30 should be patentable over the cited art, and
withdrawal of this rejection is respectfully requested.

Examiner responds:

Applicant's argument is moot based on new grounds of

rejection.

XVII. Rejection of Claim 31 Under 35 U.S.C. §103(a)

Applicant(s) argue(s):

Claim 31 stands rejected under 35 U.S.C. § 103(a) as
being unpatentable over Chryssafidou in view of Toda, and
further in view of Hallogram. Withdrawal of this rejection
is respectfully requested for at least the following
reasons. The Examiner failed to respond to Applicant's
arguments regarding claim 31 made in the previous response.
Accordingly, the arguments will be reiterated. Chryssafidou
taken in view of Toda and in further view of Hallogram does
not teach or suggest a user interface that graphically
displays a plurality of parameters, comprising a plurality
of influence parameters representing a degree of logical
relatedness between respective associated first and second
hypotheses, at a user accessible display and the user
interface receives input from a user defining the value of
a selected parameter, wherein the influence parameters are
displayed as connectors between respective first nodes,
representing an associated first hypotheses, and respective
second nodes, representing an associated second hypotheses,
and a magnitude of a given influence parameter is
represented by at least one spatial dimension of the
associated connector of the influence parameter, wherein
the plurality of parameters comprises respective confidence
values for a plurality of hypotheses, as recited in claim
31. In rejecting claim 31, the Examiner contends that
Hallogram discloses this element of claim 31. Applicant's
representative respectfully disagrees. To support the
Examiner's finding of obviousness, the Examiner contends

that branch nodes disclosed in Hallogram correspond to
connectors (as recited in claim 31), and the probability
value at a given branch disclosed in Hallogram correspond
to influence values (as recited in claim 31). Applicant's
representative respectfully submits that the Examiner has
misinterpreted claim 31. It appears that the Examiner is
reading the term "spatial dimension" as a property of the
influence value itself (e.g., defining the dimensionality
of a numerical vector), but the claim recites "at least one
spatial dimension of the associated connector," which is an
object displayed by the user interface. Accordingly, in
claim 31, the length or thickness of the recited spatial
dimension (e.g., lines) changes according to the magnitude
of the influence value. It is respectfully submitted that
there is no difference in the spatial dimensions of the
branch nodes or any of the lines connecting the nodes in
the Figure on Page 5 of Hallogram that correspond to
probability values or any other values discussed. In
particular, the Figure on Page 5 of Hallogram illustrates
branch nodes having different probability values, but
similar dimensions, both in the nodes themselves and the
lines connecting the nodes. In fact, in Hallogram, the only
variation of the dimensions of the lines in the Figure on
Page 5 of Hallogram appears to come from the layout of the
decision network, as earlier branches have longer lines to
separate the nodes in the next layer and allow room for
later layers of the tree. Where there is no issue of space,
the lines appear equal in length. Thus, Chryssafidou taken
in view of Toda, and further in view of Hallogram does not
teach or suggest a user interface that graphically displays
a plurality of parameters, comprising a plurality of
influence parameters representing the degree of logical
relatedness between respective associated first and second
hypotheses, at a user accessible display and receives input
from a user defining the value of a selected parameter,
wherein the influence parameters are displayed as
connectors between respective first nodes, representing the
associated first hypotheses, and respective second nodes,
representing the associated second hypotheses, and the
magnitude of a given influence parameter is represented by
at least one spatial dimension of the associated connector
of the influence parameter, wherein the plurality or
parameters comprises respective confidence values for a
plurality of hypotheses, as recited in claim 31. Therefore,
Chryssafidou in view of Toda, and further in view of

Hallogram does not make claim 31 obvious. Accordingly,
claim 31 should be patentable over the cited art, and
withdrawal of this rejection is respectfully requested.

Examiner responds:

Applicant's argument is moot based on new grounds of

rejection.

XVIII. Reieetion of Claims 32-34 Under 35 U.S.C. §103(a)

Applicant(s) argue(s):

Claims 32-34 stand rejected under 35 U.S.C. § 103(a)
as being unpatentable over Hallogram. Withdrawal of this
rejection is respectfully requested for at least the
following reasons. As stated above, claim 32 was
incorporated into claim 31 in the previous response.
Accordingly, the rejection of claim 32 is now moot.
Moreover, as also noted above, the Examiner has failed to
respond to arguments made by Applicant's representative in
the previous response. As noted in the previous response,
the rejection of claims 33-34 was made in error. Claims 33-
34 depend from claim 31. In rejecting claim 31, the
Examiner does not even contend that Hologram (by itself)
makes claim 31 obvious. Thus, Applicant's representative
respectfully submits that Hologram cannot make claims 32-34
obvious, since claims 33-34 depend from claim 31.
Accordingly, withdrawal of this rejection is respectfully
requested.

Examiner responds:

Applicant's argument is moot based on new grounds of

rejection.

Correspondence Information

Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Nathan H.

Brown, Jr. whose telephone number is 571-272- 8632. The

examiner can normally be reached on M-F 0830-1700. If attempts

to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, David Vincent can be reached on 571-272-

3080. The fax phone number for the organization where this

application or proceeding is assigned is 703-872-9306.

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Business Center (EBC) at 866-217-9197 (toll-free).

/Nathan H. Brown, Jr./
Examiner, Art Unit 2129
November 14, 2008
/David R Vincent/
Supervisory Patent Examiner, Art Unit 2129